

Module Guide

Module name: VR Design 1

Module code: VR110

Credit weighting: 20

Module leader: Dr Rory Summerly

2019-2020

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# Aims & Learning Outcomes:

# Module Aim

# To gain knowledge of designing for VR and XR immersive applications.

# Summary Module Description

# In this module, you will be introduced to the key principles of designing immersive experiences delivered by VR, AR and XR. You will explore immersion, presence and simulation as design tools and build a knowledge of human-centred design using and appraising the capabilities of available technologies. The module will include engagement with design guidelines and common patterns as well as experimentation. This combination will help build your knowledge and understanding of environmental design and content creation methods. With formative feedback from your tutors, you begin to plan and build a VR design experience using iterative methods. Tutors will outline core methods and provide advice on the results of your experimentation.

# Learning Outcomes

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| **At the end of the module, you will be able to …** | | |
| **LO #** | **LO name** |  |
| 2 | Practice | Identify knowledge and skills appropriate to specialism. |
| 4 | Implement | Recognise the way specialisms integrate into development workflows and contexts. |
| 5 | Reseach | Report on an issue using appropriate sources and academic conventions. |

# Project Brief(s):

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| **Project 1 title:** | **Portfolio** |
| **Project Tutors:** | **Alxwyn Parker** |
| **Start date:** | **September 23rd** |
| **Deadlines:** | Please logon at [MyFalmouth](https://myfalmouth.falmouth.ac.uk/) for a personalised submission schedule. |
| **Project Brief:** | |
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| **Work required:** | |
| This assignment is an individual task. You should submit a zip folder of your work that includes a **readme.txt** that outlines the submission directory structure and **provides OneDrive links for any work that is too large for the Learning Space size constraint (1GB).**  Your submission should include sub-folders for:   * Research - any supporting research relevant to the assignment * Experiments - any supporting experimentation relevant to the assignment * Design - any supporting design work relevant to the assignment * Final - a video of the final experience | |

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| **Assessment:** |
| **Formative Assessment**  Formative assessment and feedback will be integrated into the teaching delivery. This includes in-process critique and evaluation of the quality of individual concept art projects. Critique is also provided on workflows and techniques together with professional practice and etiquette.  Feedback on your formative process work will support you in developing the project for summative assessment.   |  |  |  |  | | --- | --- | --- | --- | | Formative Assessment | | | | | Assessment Method | | Description of Assessment Method | How | | 1 | Class critique | Weekly workshop one-on-ones | Every VR110 workshop offers individual working time with the tutor in which you can ask for crit and feedback on works in progress | | 2 | Clinic | Week Six peer feedback | This special workshop activity offers you the chance to see whether your classmates feel you are achieving the learning objective and allows you to see how others are tackling the module. |   **Summative Assessment**  Summative assessment will take place at the time specified in My Falmouth.   |  |  |  |  | | --- | --- | --- | --- | | Summative assessment | | | | | Assessment Method | | Description of Assessment Method | How | | 1 | **PO** | Portfolio | Students create a portfolio containing both a journal and five concept art pieces. Staff grade the portfolio according to the learning outcome | |

# Project 1 Schedule:

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| **Week** | **Title** | **Description** | **Lecture** |
| **Week 1** | **An Immersive Welcome** | The introduction this week, will outline the various assignment briefs and how they map to the module structure. This is a chance for you to ask questions about the scope and possible outcomes of the module. | Before we get ahead of ourselves with all this futuristic, edge technology it is important to get a little context and understand the driving factors behind the recent surge in interest for immersive technologies. This week we will discuss the history and current trajectory of immersive technology and get familiar with the relevant tech and terminologies. |
| **Week 2** | **Prototyping Immersive Experiences** | This week we will review tools, techniques and theory around rapid prototyping immersive experiences. | The complexity of development pipelines for creating VR experiences can be seen as barrier or bottleneck for creating engaging immersive experiences. This week we will review approaches to rapid prototyping. Some that apply to tradition game design and others that are more specific to VR. |
| **Week 3** | **Immersion vs. Presence** | This week we compare and contrast the terms immersion and presence to help us better understand the requirements of immersive systems. | Teleporting the user into new worlds can be an exciting prospect but it is vital to remember that we are dealing with real people. We must ensure that we keep the user at the center of the design process and ensure their comfort and safety. In order to do this, we must consider human factors when working with immersive systems. This week we will explore the human factors of VR though the terms, immersion and presence and begin to create a set of guiding principes for good UX. |
| **Week 4** | **Embodiment** | This week we will investigate the term 'embodiment' in relation to VR. | Drawing upon some early research by Jaron Lanier and recent advances in interative avatars by the likes of FB, this week focuses on the implications of inhabiting VR spaces either in isolation, with AI or in social contexts. |
| **Week 5** | **HCI** | This week we look at how traditional HCI research can inform the design and implementation of immersive experiences. | As with any emerging field, immersive tech draws upon many different established fields to help accelerate progress. One such field is Human-Computer Interaction (HCI) - the study of design for computer technology and, in particular, the interaction between humans (the users) and computers. This week we will lean upon some key texts in this field to establish some guidelines for best approaches to UI in VR. |
| **Week 6** | **Pitch** | This week you will pitch your VR experience to peers and faculty. This will be a chance for you to receive formative feedback for your concept. | n/a |
| **Week 7** | **Story Telling in VR** | This week we will discuss the importance of narrative in relation to immersion in VR worlds. | Whether you are simulating realworld scnearios of creating absurd worlds of fun and chaos, narrative is key to engaging users. This week we will look at various theories around narrative design including the term suspension of disbelief, non-linear narrative and story arcs. |
| **Week 8** | **Traditional Sound Design** | This week we will focus on the often overlooked art of sound design for VR. | As a consequence of surviving thousands of years of evolution, humans have become extremely adept at localizing and identifying sounds in their environment. This makes sounds design a crucial consideration for any immersive experience. This week we will begin to explore theory, tools and techniques to support sound design for immersive experiences. |
| **Week 9** | **Immersive Sound Design** | This week we continue to explore sound design but with a focus on advanced techniques that apply specifically to immersive experiences | This week's lecture is a continuation of the previous week. We will review the available research to form a broader understanding of sound design in relation to immersive experiences |
| **Week 10** | **Evaluating VR experiences** | This week we will explore the various methods for play testing traditional games and immersive experiences | Immersive experiences are inherently user focused and require far more consideration for the user than traditional screen based media. |
| **Week 11** | **Peer Review** | These weeks are reserved for project development and support. | The main focus of this week is peer review. You will have the oportunity to demo your artefact and receive feedback from peers and module faculty |
| **Week 12** | **Safety, Ethics and Regulation** | This week will focus on the legal, ethical and safety considerations for deploying immersive experiences into the wild. | Before we close out this module it is vital that we acknowldge the safety and ethical implications of immersing users in worlds outside of their control. This week we will back track a bit and review yoru experiences of the module so far and what you have learnt about these technologies, |

# Learning methods and terms:

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| 1 | Lecture | A presentation or talk on a particular topic.  Lectures may follow the traditional model with a member of staff presenting ideas and facts to a group, or may involve other methodologies such as film screenings and discussions.  Lectures may involve large audiences or smaller groups, as required by the topic.  Take notes and/or record lectures so you can refer back to the information later. Many lectures will have an accompanying presentation which will be made available on the learning space. |
| 2 | Seminar | A discussion or classroom session focusing on a particular topic or project.  Seminars are sessions that provide the opportunity for students to engage in discussion of a particular topic and/or to explore it in more detail than might be covered in a lecture. A typical model would involve a guided, tutor-led discussion in a small group. |
| 3 | Technical workshop | A session involving the development and practical application of a particular skill or technique.  Practical workshops will consist of induction or training in technical equipment, production processes, or software. Take notes and/or record workshops so you can refer back to the information later. The skills learnt are critical to the effective delivery of assessment elements and you are expected to work on and develop these skills in your guided independent study time. |
| 4 | Tutorial | Tutorials will be held with individual students or small groups. You are able to discuss specific aspects of the module and receive feedback and advice on the assessment elements. Take notes and/or record tutorials so you can refer back to the discussion later. Reflect on the feedback and consider how to implement advice and suggestions to drive your project forward. |
| 6 | Formative assessment | Formative assessment occurs throughout the module. You will receive ongoing critical feedback on your work through process discussions, side-coaching or tutoirals. Reflect on the feedback and consider how to implement advice and suggestions to drive your project forward. Focus on improving in areas where you need to strengthen your response to the learning outcomes. |
| 7 | Summative assessment | Summative assessment occurs at the end of the module. You will receive critical verbal or written feedback on your work and an assessment band grade. Reflect on the feedback and consider how to implement advice and suggestions to improve in the next module. Focus on developing the areas where you need to strengthen your response to the learning outcomes. |

# Learning resources:

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| [Learning Space](http://learningspace.falmouth.ac.uk/course/view.php?id=449&section=1) | All module information, lecture presentations, useful links, and other critical documentation will be available for you to download from the module learning space page. The learning space will also be used to upload digital submissions and interactive activities such as forums. |
| Module resource list (hyperlink tbc) | All recommended reading and published resources for the module will be available to view on the Talis Aspire resource list. Essential reading will be indicated at the top of the list. |
| [One Stop Search](http://library.fxplus.ac.uk/search/one-stop-search) | An excellent tool for academic research. |
| GDC Vault | Search in the Library catalogue to access this valuable Games-specific resource. |
| [Electronic resources](http://library.fxplus.ac.uk/resources?type=275) | Access to a wide range of digital content, many of which through subscriptions paid for by the university. Resources include business, trends and trade directories; material databases; e-books; newspaper articles; etc. |
| [Study Hub](https://studyhub.fxplus.ac.uk/) | Support across a wide range of academic skills, including time management; research skills; referencing; reading and note making; academic writing; etc. |

# Professionalism:

**Attendance**

Attending all your timetabled sessions is one of the best ways to help you succeed in this module.

In accordance with the Student Charter, you are expected to arrive on time and take an active part in all your timetabled sessions. If you are unable to attend a session for a valid reason (e.g. illness), please contact your Module Leader.

**Health and Safety**

Please make sure you are fully aware of all health and safety rules and protocols relating to your studio practice, including inductions. You can find the course health and safety rules and workshop protocols on the Learning Space on the course homepage <http://learningspace.falmouth.ac.uk/course/view.php?id=417&section=1>

**Intellectual Property**

Please make sure you are fully cognisant of Intellectual Property law as it affects your work. Refer to second year teaching and handouts on the Learning Space here <http://learningspace.falmouth.ac.uk/course/view.php?id=449&section=7>

and to the government’s Intellectual Property Office publications, e.g. <https://www.gov.uk/topic/intellectual-property/copyright> and <http://www.ipo.gov.uk/blogs/iptutor/creative-copyright-part-1/>.

While photobashing and paintovers of teammates’ work are standard practice in a studio in industry, **we cannot make allowances for these workflows in an academic context unless all the composited imagery is your own IP.**